Abstract

An integrated and unified method of statistical-like analysis, scenario forecasting, risking sharing, and risk trading is presented. Variates explanatory of response variates are identified in terms of the "value of the knowing." Such a value can be direct economic value. Probabilistic scenarios are generated by multi-dimensionally weighting a dataset. Weights are specified using Exogenous-Forecasted Distributions (*EFDs*). Weighting is done by a highly improved Iterative Proportional Fitting Procedure (IPFP) that exponentially reduces computer storage and calculations requirements. A probabilistic nearest neighbor procedure is provided to yield fine-grain pinpoint scenarios. A method to evaluate forecasters is presented; this method addresses game-theory issues. All of this leads to the final component: a new method of sharing and trading risk, which both directly integrates with the above and yields contingent risk-contracts that better serve all parties.